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THE PLOTTER

CLACKAMAS COMPUTER APPLIED
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NEWS LETTER
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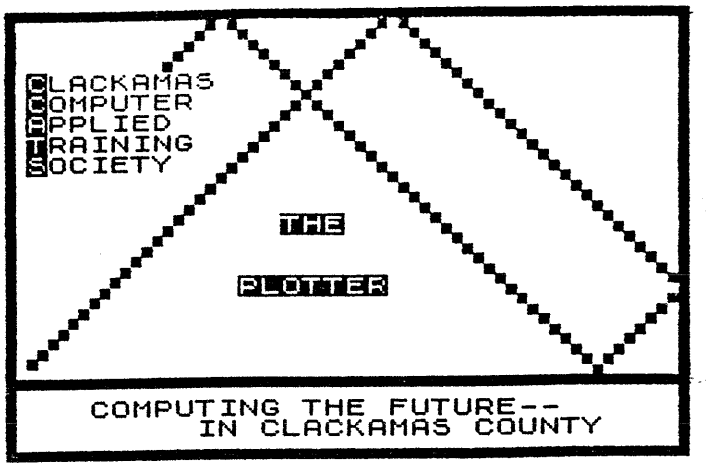


MEETING

The FEBRUARY meeting will be:

on: SAT., FEBRUARY 16 1993

MEETING open at: 1:30 P.M.
in: COMMUNITY ROOM
FAR WEST FEDERAL BANK
OREGON CITY SHOPPING CENTER

WHAT YOU WILL FIND IN THIS ISSUE:

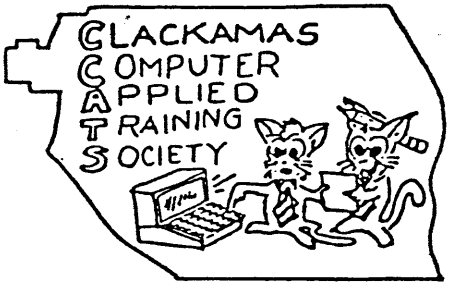
FROM THE EDITOR'S DESK

Some comments about the articles/ programs in this issue.

LKDOS users will find an interesting program about locking up a disk so unauthorized users will be stymied. Not locking it in a box but locking it so the attemted use will not take place. The interesting inovation permits locking the whole disk, not just one or more programs. Our member Bill Dunlop explains the need in his family.

For those readers who like to delve in 2068 graphics we have a program that plots with a graphic figure (so it appears), such as a rectangle, in a SIN curve. As explained in the article, it is most interersting when vertical lines coincide exactly. This method can be used with other figures as long as the start of DRAW is from PLOT that produces the curve.

It may be old information to some readers but new to other readers so this issue includes a page of POKEs and other pertinent information.



Continued from page 1
Over a period of time we will reprint some of George Mockridge's columns that appeared in TIMELINZ a few years back. Surprisingly this request came from one of our very first members who thought such information would be easier to use if compiled by the page. OK Bob, just make photocopies to suit your needs.

For the MSDOS PC user, we have a novel moving message program that not only scrolls a block message across the screen but it drops the message down 2 lines for each pass, then returns the message to the top of the screen and repeats as long as desired. The suggestion is a message that can be left at the worker's computer when the worker is away for a while. The program needs polishing, maybe someone can offer an improvement.

We also have a short program for the GWBASIC user that produces a color border around the screen, just a narrow band placed outside of the image area. The border seems to stay there after returning to MSDOS. For the not so often user of GWBASIC, use SHELL to return to MSDOS and EXIT to leave MSDOS and return to GWBASIC.

Next month I hope to have had some experience with Perdersen's Widjup program called CAD, Computer Aided Drawing, so a report can be made on this program. It's main use is for producing printed circuit board layouts. Hopefully CAD#5 (the issue for Oliger/Epson) will provide actual drawing capability of other objects. Listings for this program in various printer/DOS formats as well as manuals have been available in 1992 issues of UPDATE Magazine.

My son who owns a machine shop with many computer controlled devices is usuing TurboCAD on a 386 computer. He does beautiful drawings of machine parts to produce. This program does layers that can be stacked, so several parts that would be an assembly can be shown in place, even cutaway drawings made from a layer. Real nice!

BITS & BYTES

by: Rod Gowen

In this column I try to bring you the latest and complete information and news available to me regarding the world of TS computing. One way that I can accomplish this is if I have the support of you, the reader, in collecting news that may be of interest to other readers. If you have any news, rumors or other tidbits of information that fits this description, why not send it along? We will be watching!

IT HAD TO HAPPEN!--

I finally missed a regular meeting of CCATS! Yes, after more than 11 years, I found myself having to miss a regular meeting of our esteemed club. Due to my wife's recent illness I decided to stay with her on the day of our last meeting instead of going to the meeting. I am sure that I will be forgiven this absence due to the reason. I will try not to let it happen again.

I and my wife also wish to thank those who sent their regards by phone after her recent reversal in health. She is doing very well now and should not have too many problems if we stick to a regimen given us by the medical practitioners.

IT'S DUES TIME AGAIN!--------

It has been brought to my attention by Bob Evans that we had discussed the topic of dues at some previous meetings and that the general consensus was that we would all pay the $20 again this year, and, if there was a surplus due to less expenses and the expected sales of our book, we would be able to do one of the following: 1. Reduced dues for next year. 2. Make a partial dispersal of the surplus to paid-up members. 3. Eliminate dues for the following year.

We can discuss it if and when we ever have enough members at a meeting to hold a regular business meeting. See you there!

ANOTHER SATURDAY MEETING -------

We will again be meeting on a Saturday in February. The date, as shown on the front of this newsletter, will be the 13th at 1:30PM to 4:30PM. We will, hopefully, be nearing completion on the pasting up of the book. With so few people helping, this project has taken a lot longer than originally expected to complete. Never fear, though, we will get it done--sometime! If you are interested in obtaining a copy of THE BEST OF THE PLOTTER after it is ready, be sure to let us know so that we can gauge the number of copies to put out on our first run.

NEW PROJECT UNDERTAKEN----

Bill Dunlop and I will be (slowly) putting together a comprehensive index of THE PLOTTER. It will take a while and will be input on the IBM clone in ASCII format. It will then be converted to MSCRIPT and TASWORD for 2068 users with LKDOS. We will then make it available to Don Lambert of T/SNUG for him to convert to Oliger format and to put into the T/SNUG library for future reference. With more than 11 years of PLOTTER issues to enter, it will not be an overnight job. We should, with luck, be finished in 2 to 3 months. Keep watching here, I will keep you posted on the progress of the project.

That's it for now!

See you next time. . .

LARKEN LOCK!

Bill Dunlop

My youngest son loves games. Computer games. The ability of my 2068 to run both T/S or Spectrum games from disks has been a source of enjoyment, even when other tasks should be attended to. His mother has asked me to lock the computer up at times to help get his attention or as the result of some restriction.

As I often use the computer as a teaching tool for my boy even if he is on restriction how then to make the teaching programs useable while making the games unuseable? Being a programming nut the obvious solution of putting the games disks into a different location was not even considered.

He knows quite a bit about this system and has been known to load games when he is supposed to be studying.

How then to disable the game in such a way that if I wanted to use the games I can while still making them unavailable to him. Another goal was to leave the game itself unchanged, as reprogramming my over 140 games was more than I wanted to attempt. My 2068 should do that kind of repetitive tasks, not me.

The Larken system gave me an easy answer!

Thus was born a new program --- a LOCK & KEY for disk based programs.

```
  1 REM Larken Lock v1.2
  2 REM W.M. Dunlop, 1992
  5 INPUT "Key Code ";d
 10 IF d=dad THEN GO TO 20
 15 PRINT FLASH 1;" YOU BLEW IT
KEITH! ": PAUSE 30: NEW
 20 INPUT "lock or unlock? ";k$
 25 RANDOMIZE USR 100: GO TO 1
 30 RANDOMIZE USR 100: CAT "",
 40 IF k$="l" THEN GO SUB 100
 45 IF k$="u" THEN GO SUB 200
 50 GO TO 20
100 REM lock
110 INPUT "lock name ";a$
115 IF a$="quit" THEN NEW
120 LET b$=a$: LET b$(LEN b$-2)
=CHR$ 0
130 RANDOMIZE USR 100: MOVE a$,
b$
190 RETURN
199 STOP
200 REM unlock
210 INPUT "unlock name ";a$
220 LET b$=a$: LET b$(LEN b$-2)
="."
221 LET a$(LEN a$-2)=CHR$ 0
230 RANDOMIZE USR 100: MOVE a$,
b$
290 RETURN
299 STOP
300 REM as a direct command
enter, LET d=your secret numbers
, before saving the program
```

GRAPHICS AND SOUND

This program by Joe Smith Jr. is from an old issue of CTM magazine. It is interesting how he has used one graphic "fuzzy ball" 12 times and then explosively connect all of the randomly placed balls with lines. This program will allow the venturesome user a chance to change the beep sound as well as musical scale sounds.

```
   3 REM GRAPHIC WITH SOUND AND
COLOR
   4 REM DICK WAGNER, from 1/87
CTM Magazine by Joe Smith Jr.
   6 REM if using a B&W monitor,
 delete INK in line 60, change P
APER to 7, INK to 0, and BORDER
to 0 in direct mode. Delete INK
in line 130
  10 DIM B(10): DIM C(10)
  15 FOR A=1 TO 10
  20 GO SUB 2000
  30 FOR J=2 TO 14
  40 FOR I=0 TO 2*PI STEP PI/10
  50 GO SUB 1000
  60 INK 7-(J/2): PLOT X+J*COS I
,Y+J*SIN I
  70 NEXT I
  80 NEXT J
  90 NEXT A
 100 FOR A=1 TO 9
 110 FOR N=A TO 9
 120 PLOT B(A),C(A)
 130 LET XX=B(N+1)-B(A): LET YY=
C(N+1)-C(A): INK 0
 140 DRAW XX,YY: SOUND 6,15;7,7;
8,16;9,16;10,16;12,16;13,0
 150 NEXT N: NEXT A
 160 SOUND 6,6;7,7;8,16;10,16;12
,56;13,8
 170 FOR N=1 TO 250: NEXT N: SOU
ND 8,0;9,0;10,0: FOR N=1 TO 5000
 180 LET A$=INKEY$: IF A$="" THE
N GO TO 180
 190 CLS : RUN
 999 STOP
1000 LET N=INT (I*20.69)-60
1010 BEEP .01,N
1020 BEEP .01,9-N
1030 RETURN
2000 LET X=INT (24*RND)*10+10: L
ET B(A)=X+2
2010 LET Y=INT (16*RND)*10+10: L
ET C(A)=Y
2020 IF A>1 THEN PLOT B(A-1),C(A
-1): GO TO 2040
2030 RETURN
2040 LET XX=X-B(A-1): LET YY=Y-C
(A-1)
2050 DRAW XX,YY
2060 SOUND 6,6;7,7;8,16;9,16;10,
16;12,56;13,8
2070 FOR N=1 TO 250: NEXT N: SOU
ND 8,0;9,0;10,0
2080 PLOT B(A-1),C(A-1): DRAW XX
,YY
2090 RETURN
```

USING DRAW WITH PLOT

Dick Wagner

An interesting display of PLOT with DRAW can be made with the following program. As noted in the REM statements, certain numbers make it possible to overlap vertical lines in the boxes. To easily show this, delete the last part of line 130 (the Y coordinate) and change it to 50. RUN and see that the lines overlap.

It should be possible to tack on any DRAW figure to a curve like this. The Y coordinates in line 130 will need to be adjusted to keep the figure within screen boundaries or the program will stop.

```
  10 REM PLOT A SIN CURVE WITH A BOX
  20 REM PRESS BREAK WHEN FINISH
ED TO DELETE MESSAGE "B INTEGER
OUT OF RANGE  1000:1"
  30 REM numbers .05 in LINE 130
, 251 in LINE 140, and 12 in LIN
E 900 are important for overlapp
ing vertical lines
 120 PAPER 0: INK 7: BORDER 0
 130 FOR x=0 TO 2*3.14159 STEP .
05
 135 IF x>6.1 THEN PRINT AT 21,0
;"SIN FUNCTION WITH A BOX"
 140 PLOT x/(2*3.14159)*251,SIN
(x)*75+100
 145 GO SUB 900
 150 NEXT x
 160 GO TO 160
 900 LET A=12
1000 DRAW A,0
1010 DRAW 0,-22
1020 DRAW -A,0
1030 DRAW 0,22
2000 RETURN
```

COLOR BORDERS FOR MSDOS/GWBASIC

Dick F. Wagner

The following program changes the screen border of color monitors. While the border is changed in the BASIC state, it is retained when changing back to MSDOS. However if RUN command is used after the border is set then it is wiped out.

In case the reader has forgotten, once the computer is using GWBASic, simply key in SHELL and you return to DOS. Once you have initiated GWBASic you return to it from DOS with EXIT.

There are other ways of changing the screen attributes but this is the first method I have seen that uses the OUT command. The OUT command is used to send a byte to a machine output port. From this I assume that the screen is output port 960.

The user might be interested in fiddling with the 17 and 32 in lines 340 and 360. Be ware, a number less than 32 in line 360 will cause a lockup, at least some of the numbers, while numbers over 32 act the same as 32. I don't recall what happens with line 340.

```
100 'BORDER CHECK PROGRAM
110 'USE THIS GUIDE FOR M
120 '0  SCREEN 0,0: WIDTH 40 MODE BW40
130 '1  SCREEN 0,1: WIDTH 40 MODE CO40
140 '2  SCREEN 0,0: WIDTH 80 MODE BW80
150 '3  SCREEN 0,1: WIDTH 80 MODE CO80
160 '4  SCREEN 1,0
170 '5  SCREEN 1,1
180 '6  SCREEN 2
190 '7  SCREEN "MODE MONO"   MODE MOMO
200 '8  SCREEN 3 (PC JR)
210 '9  SCREEN 5 (PC JR)
220 '10 SCREEN 6 (PC JR)
230 '13 SCREEN 7
240 '14 SCREEN 8
250 '15 SCREEN 10
260 '16 SCREEN 9
270 '17 SCREEN 11
280 '18 SCREEN 12
290 '19 SCREEN 13
300 SCREEN M
310 REM "C"  IS YOUR DESIRED BORDER COLOR, 0 THRU 15
320 INPUT C
330 A=INP(960)
340 OUT 960,17
350 OUT 960,C
360 OUT 960,32
370 SAVE"BORDER.BAS"
```

PC MOVING MESSAGE

Dick Wagner

Last month I presented a method for moving a symbol across the screen with GWBASTC. This time the moving symbol has been expanded into a message that moves from right to left plus it drops down the screen in 10 passes, then repeats this 10 times.

There are limitations to this method, mainly 4 lines or 30 pixels (slightly less that 4 complete lines) and about 22 characters in line length.

A message running for a period of time will require any screen saving system be disabled as there would be no keyboard input. However, because the message moves it is not at one position for long.

Line 122 can be expanded to repeat as many loops as desired. The 10 loops will repeat the message to the top of the screen in about 1 minute 18 seconds. If the message runs for 45 minutes then the loop can be increased to about 450. Lines 170 and 180 can be altered so 20 passes will be made by the message before it repeats to the top of the screen. Change line 125 to 20 in place of 10 and lines 170 and 180 will change to M*8 in place of M*16. This is the width of one line, 8 pixels, in place of 2 lines.

Color can be added to the program, maybe changing paper color and/or ink color periodically. The method for moving messages produces a rather staid screen. There doesn't seem to be any way to produce a nice wrap around effect. Unless the message is short there does not seem to be room for a box.

There is enough information given in the program that the user can try alterations to see what limits exist and what can and cannot be done. Kind of an experimantal program. For my self, I tried single lines until I reach a maximum number of characters. Then the number of lines permitted was investigated. A method for repeating the message down the screen was developed, then the recirculating message was worked out. Have fun, that is what makes our computers interesting.

```
10 'GWBASIC graphics!
20 'this program moves a message across the screen
30 'maximum number of characters is about 22
40 ' maxumum number of lines is 4, 30 pixels
100 SCREEN 2
110 DIM CHARACTER(180)
120 LOCATE 1,1
122 FOR A=1 TO 10
125 FOR M=1 TO 10
130 PRINT "I WILL BE BACK "
135 PRINT "FROM LUNCH AT 12:45."
137 PRINT "LEAVE ANY MESSAGES"
138 PRINT "ON THE PAD."
140 GET (0,0)-(180,30),CHARACTER
150 CLS
160 FOR XPOS=(640-181) TO 0 STEP -1
170     PUT (XPOS,M*16),CHARACTER
180     PUT (XPOS,M*16),CHARACTER
190 NEXT XPOS
195 NEXT M
197 NEXT A
200 END
```

POKES, ETC FOR THE 2068

Dick F. Wagner

Back some years George Mockridge of TIMLINEZ compiled POKES and other interesting information for the 2068 computer. I don't have a complete set but here is what I have from 3 issues. Things of interest have also been added from other sources.

POKE 23609,100
BEEP when any key is pressed.

POKE 23692,255
Use before every print for automatic scrolling. Works like the scroll command on the 1000/1500.

POKE 23568,8
Put 2068 in CAPS mode.

POKE 23568,0
Take 2068 out of CAPS mode.

PAUSE 0
PAUSE until any key press.

POKE 23561,# (#=1 TO 35)
TIME that a key must be held fown before it repeats. Prefer 10-15 for text.

PP 23562,3 (#=1 TP 5)
DELAY between successive repeats of a key held down. Prefer 3 for TEXT.

USR 15002
Type this in if you find your- self in an INPUT you can't get out of.

```
DIM A$(704)
PRINT AT 0,0; OVER ; PAPER 1;
INK 6; A$
```
Allows you to change PAPER and INK colors without clearing screen.

```
PRINT #1; AT 0,2; "HI"
PRINT #1; AT 1,5; "BY"
PAUSE 0
```
Prints on lines 22 and 23.

```
LOAD ""CODE
RAND USR 33792
```
Try this for programs that will not LOAD (TAPE)

```
LET x=INT(X*10^y+.5)/10^y
```
Use for rounding. x=NO. to be rounded. y=NO. of DEC. places.

```
1 DEF FN r(x*^y+)/^y
2 INPUT "Enter a number ";a
3 INPUT "Round off to? ";b
5 PRINT FN r(a,b)
```
Sets the defined function to the formula used to round off. a=NO. before rounding. b=NO. of dec. places desired after rounding.

```
INPUT LINE A$
```
Prevents computer from placing "" on screen when waiting for INPUT. Note: can't use STOP with this methos, but CAP SHIFT 6 will STOP. Bug in system.

```
PRINT PEEK 23635+256*PEEK 23636
```
Used to find starting address.

```
PRINT '''
```
Gives lines feeds to PRINT statement

```
RANDOMIZE USR 0
```
Use to reset computer

```
INPUT AT 22,0; AT 10,0;" input value "a$
```
Input at any position on the screen.

```
1 FOR I=0 TO 21
2 FOR X=0 TO 31
3 LPRINT SCREEN$ (I,X);
4 NEXT X
5 NEXT I
```
Copy screen to printer without using COPY command.

```
OPEN #2,"p"
```
Sends all data normally destined for the screen to the printer.

```
CLOSE #2
```
Cancels the OPEN #2,"p" command

```
1 LET C=2
2 FOR I=32 TO 255
3 PRINT AT 0,0; CHR$ ""
4 PRINT AT 0,0; CHR4 I
5 IF CODE SCREEN$ (0,0)=0 THEN PRINT AT 4,0; CHRS$ I: LET C=C+2.
6 NEXT I
```
Lists characters not recoginized by SCREEN$ command.

-NOTICE-

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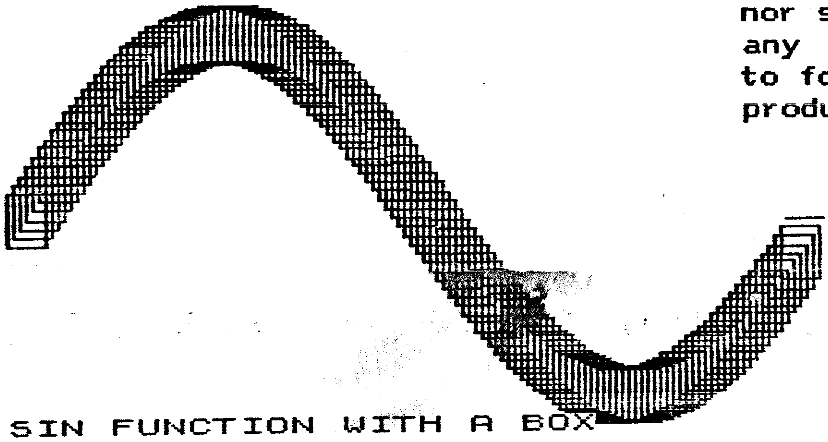

SIN FUNCTION WITH A BOX

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Oregon City, OR 97045

USA 29

EXPIRES: 12/92
HOWARD CHEGWIDDEN
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